XV. *Account of the Effects of Lightning on Board the* Atlas. *By* Allen Cooper, *Eſq. Maſter of the* Atlas *Eaſt India-man. In a Letter to* Joſeph Banks, *Eſq. P. R. S.*

Read January 19, 1779.

DEAR SIR, Mother-Bank, Jan. 4, 1779.

AS I am deſirous of acquainting you with every obſervation made either by my friend Dr. LIND or myſelf during the voyage, I cannot help troubling you with an account of the melancholy effects of the lightning on board my ſhip the Atlas on the 31ſt of Dec. 1778. The morning and forenoon of that day were clear and cold, with a ſtrong dry wind from the N.W. which by Dr. LIND's wind-gage generally ſuſtained a column of water of two inches[a], and was ſo high as to prevent boats coming off to the ſhip. At 3 P.M. a ſquall from the N.N.W. came with a violence ſcarcely credible, attended with very heavy rain, large hail, and the moſt ſevere lightning, which ſtruck our main-maſt-head, deſcended down the maſt or its rigging, and entered the gun-deck ſomewhere nigh the main hatchway. Thoſe

(a) A force equal to lb. 10,4.

who were employed in letting down the ſheet cable (as we had then brought both our anchors a-head) received very ſmart ſhocks, and were witneſſes to the fire going out at ſeveral parts of the ſhip, and to an exploſion equal to that of a well-charged cannon, accompanied with a moſt ſulphureous ſmell which laſted all that day and night. It was not till the ſquall abated that our attention was called to the maſts, when we ſaw one of our beſt ſeamen hanging by his feet in the main catharpins ſtruck dead; another in the main-top was ſo miſerably ſcorched as to remain ſenſeleſs, and now continues in a dangerous way. The boatſwain's mate, who was nigh him, had his arm ſo much hurt by the ſhock he received, as not to recover the uſe of it for half an hour. All poſſible means were uſed to ſave the poor fellow who had received the fatal ſtroke; but there appeared no ſigns of returning life in him. His face was quite livid; and from the livid colour of the ſcorched places it appeared the lightning had entered his head, come out again on the left ſide of his neck, and ſpread itſelf down his left ſide and over his legs. The other man was ſtruck down in the main-top, his back much ſcorched, and on the inſide of his right leg the ſtocking burſt open a little below the knee. I have ſent the cloaths of the man who ſuffered, as alſo the ſtocking of the other man. Our top-gallant-maſts, at

the time they were ſtruck, had no iron work upon them[b]. Upon a careful examination, no viſible track of the lightning could be found upon the maſts, or any part over which it had paſſed, nor was any damage done to the ſhip, maſts, or rigging.

(b) On account of the ſeaſon of the year, in which lightning is ſo extremely unuſual, it had not been thought neceſſary to fix the conductor.